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EXAMINER

WALSH, DANIEL I

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/492,668

Applicant(s)

GARVER, ROY A.

Examiner

Daniel I Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 November 2001 (Amendment).

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-39 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 27 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) Other: _____ .

DETAILED ACTION

1. Receipt is acknowledged of the Amendment received on 8 November 2001.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppert et al. in view of Dumont (US 5,457,307) and Walter et al. (US 5,992,570).

Ruppert et al teaches establishing a communication link with a data storage unit in which a plurality of data records are stored, each of the records corresponding to a respective one of a plurality of identifiers that was read by a portable data reading unit before the communication link was established and inputting the plurality of data records from the data storage unit via the communication link in the establishing step through "In accordance with the teachings of the invention, there is disclosed a personal bar code scanning device which comprises a microprocessor and associated control software coupled to a bar code reader, a display, and a bi-directional communication port/device, ROM or EPROM memory and random access memory" (col 1, line 58-63) and "Other routines retrieve the current price list of the store to be shopped. This may be done by modem in some embodiments, or by physical connection to the store

computer in other embodiments through the communication port. In other embodiments, the current price list can be downloaded by way of an infrared transceiver local area network interface when the user enters the store and indicates that the price list is to be downloaded" (col 2, line 16-19). Ruppert et al. Teaches determining the price total for a plurality of items corresponding to the plurality of identifiers based on the data records inputted through "Another routine alters the display of the item scanned to indicate that it has been scanned and then looks up the item on the current price list and adds its price to a running total which is displayed to the user" (col 2, lines 29-32). Ruppert et al. teaches accepting payment for the items by using a customer operated payment system via FIGs. 29A, 29B 15. Ruppert et al. fails to teach that the communication link was established between a self-checkout station incorporating a customer-operated automated payment-accepting subsystem, and that accepting payment was performed at the customer-operated automated payment-accepting subsystem, because in Ruppert et al. the payment system is integral with the data storage unit.

Re claim 2, Ruppert et al. teaches that the data storage unit is contained in the portable data-reading unit through SYSTEM MEMORY EPROM/RAM 324 of FIG. 16.

Re claim 3 and 6, Ruppert et al. teaches the data storage unit receives data via an RF interface through and comprises an RF tag reader "A portable barcode and RF ID tag reader that gathers information about items to be purchased etc by reading barcodes or RF ID tags" (abstract). Here it is understood that an RF interface exists in order to have a device capable of reading RF tags.

Re claim 4, Ruppert et al. teaches outputting signals to a POS controller in a format that mimics conventional POS scanning terminals through "After all desired items have been

scanned, the stored descriptive information and price information are downloaded from the personal bar code scanner to the store computer either through a hardwired connection between the communication port of the personal scanner and a communication port of the store computer or through an infrared transceiver local area network interface" (col 2, lines 41-47) and inputting price information has been discussed above in reference to credit card payments.

Though Ruppert et al. is silent to the specific use of a controller for determining a price total, at the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use a controller.

One would have been motivated to use a controller to have a reliable, electronic mean of ensuring the accuracy of the signals and their processing. Further, it is well known in the art to use controllers for electrical data processing. The outputting of signals to a POS controller that "mimics" the conventional POS scanning terminal output signals is understood to mean the conventional bar code scanning and output signals used for price determination is the same as that recited in the claim. Therefore, it is understood that the inputting and price determination means as set forth in the claims is functionally the same as that taught by a conventional POS terminal (i.e. Walter et al.). Therefore, in view of the teachings of Ruppert et al. as modified by Dumont and Walter et al, the price determining means as set forth in claim 4 would have been obvious and conventional to use, to one of ordinary skill in the art at the time the invention was made.

Re claim 5, Ruppert et al. teaches the limitations of the claim through "In alternative embodiments, the bar code scanner can be a laser diode based scanner, LED contact scanner, optical or magnetic scanner or character reader" (col 6, lines 61-64).

Re claims 8, 9, 11, and 12 the teachings of Ruppert et al. have been discussed above.

Further, Ruppert et al. teaches "After all desired items have been scanned, the stored descriptive information and price information are downloaded from the personal bar code scanner to the store computer either through a hardwired connection between the communication port of the personal scanner and a communication port of the store computer or through an infrared transceiver local area network interface" (col 2, lines 42+).

Re claims 13-15: Ruppert et al. teaches linking the portable reading device through "At checkout time, the product identification data stored in the PID memory is downloaded to the host computer 509 of the store as symbolized by RF transmission 508. The data regarding the products the customer wants to purchase can also be downloaded by a hardware link to a local area network coupled to the store host computer. This can be done either via a LAN interface to the store computer integrated on a PCMCIA card which is slipped into the PCMCIA slot of the PID at checkout time, or the PID can be slipped into a base unit at the checkout stand like base unit 312 which downloads the stored information via the infrared link between the PID and the base unit. The information downloaded into the base unit is then downloaded to the store computer via a LAN interface to the store computer's local area network built into the base unit or via an RF interface to the LAN or the host computer itself" (col 32, lines 21-36). Though Ruppert et al. fails to specifically teach or fairly suggest the use of a cradle to link that data, at the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use a cradle to link the data. It would have been a matter of design choice since applicant has not disclosed that a cradle solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the linking methods.

set forth in the reference such as a LAN interface or a PCMCIA card. Further, though Ruppert et al. is silent to as the distance between the obtaining step and dinking step, it is taught above that the obtaining step takes place on the store floor where people carry the portable scanner around to scan items, and that this portable device can be separate and used outside of the base unit of the checkout. Therefore, a separation of twenty feet would have been obvious to an artisan of ordinary skill in the art to separate the locations by at least twenty feet since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Furthermore, one would have been motivated to separate the locations in order to reduce the amount of customer traffic, to conform to store sizes/layouts, and to add to the efficiency and ease of navigating through the store/warehouse.

Re claims 1-15, Ruppert et al. fails to teach linking the portable reading unit to a self checkout station having a customer operated payment accepting subsystem, and that data is transferred into the self checkout station where the items are paid for at the customer operated automated payment accepting subsystem (that includes a credit card acceptor), since in Ruppert et al., the device integrates both the payment and the reading means. Further, Ruppert et al. fails to teach the use of a base station to communicate data from the portable data unit and the self-checkout station

Dumont teaches establishing a communication link between a checkout station and a data storage unit in which a plurality of data records are stored, each of the plurality of data records corresponding to a respective one of a plurality of identifiers that was read by a portable data reading unit before the communication link was established; inputting the plurality of data records from the data storage unit via the communication link established in the establishing

step; determining a price total for a plurality of items corresponding to the plurality of identifiers based on the plurality of data records inputted in the inputting step through “the device including a primarily a portable handset having a bar code scanner which enables pricing and identification data of selected items to be displayed on an LED display of the handset, and through the selective use of a price check button, a purchase button, and a return button, the price of the item may be checked, added to a running total of purchase items, the list of purchase items being stored within the handset for subsequent transfer to a data reception register of the store for payment and verification.” (abstract) and “the handset, which includes its own independent power source, includes a two-way data transmission connector in the proximal front face of the casing...Additionally, the two way data transmission connector is structured and disposed to enable the pricing and identification data corresponding to all of the purchase items to be transmitted from the purchase memory means to a data reception register at the checkout station of the store (col 3, lines 39+), and that a data storage unit is included in the portable reading unit through purchase memory means 59 and data storage means 57.

Dumont fails to teach that the communication link and payment is accepted at a register, but is silent to if it could be a customer-operated payment accepting subsystem of a self-service checkout terminal.

Walter et al. teaches a self service checkout apparatus incorporating a self checkout station incorporating a customer operated automated payment accepting subsystem to accept payment through, via “A self service checkout apparatus for processing items... The apparatus also includes a self-service terminal which includes a card or cash payment accepting device, a cash dispensing device for providing a customer with cash by way of change or cashback” (abstract)

and FIG. 1, 2, and 16. Re claim 7, Walter et al. teaches that the automated payment accepting subsystem comprises at least one of a credit card transaction device, a debit card transaction device, and a cash-accepting device through “the apparatus also includes a self-service terminal which includes a card or cash payment accepting device...(abstract). It is understood through FIG. 1, that it is a non-portable payment acceptor.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with Dumont and Walter et al.

One would have been motivated to do this in order to have an efficient, and convenient way to purchase goods at a checkout. Checkout time is reduced since customers can scan and total their items before they reach the register, labor is reduced since checkout attendants are not required for scanning all the items, or for payment accepting, and that is convenient for a customer to use (portable data reader). Furthermore, since Ruppert et al. teaches a device for retail checkout which has both the data storage and payment accepting functions in the same device, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to separate the payment accepting/self checkout means and the data storage means, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Re Nerwin v. Erlichman*, 168, USPQ 177, 179. further obviated by their functional equivalence as means for self-scanning and payment of items.

3. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppert et al. in view of Dumont (US 5,457,307), Walter et al. (US 5,992,570), and Swartz et al. (US 6,092,725).

The teachings of Ruppert et al., Dumont, and Walter et al. have been discussed above.

Ruppert et al., Dumont, and Walter et al. fail to teach that data is transferred to a self-checkout station from a base station that communicates with the portable reading unit.

Swartz et al. teaches this limitation through, FIG. 3, (col 5, lines 15+), and (col 8, lines 6-34 and col 10, lines 7+) where it is taught that the scanning terminal 100 interfaces with the scanner dispenser 2 which interfaces with the host computer 4, which interfaces with POS terminal 6 for data communications of the desired purchase items. It is understood that these are two different locations.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al., Dumont, Walter et al. and Swartz et al.

One would have been motivated to do this to have a base station, which can process the item and customer data for statistical reasons, security reasons, and/or data storage/backup reasons. Re claim 14, it would have been obvious to use a separation, especially in view of the above teaching, as a matter of convenience so as to reduce the amount of congestion in that area of the store.

4. Claims 16-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruppert et al. in view of Dumont (US 5,457,307), Dumont (US 5,540,301) and Walter et al.

The teachings of Ruppert et al., Dumont (US 5,457,307), and Walter et al., including inputting data records from the portable unit (the self checkout receives data from the portable unit and also accepts payment), and a non-portable customer operated automatic payment acceptor which receives the payment data, have been discussed above.

Re claims 16 and 21, Ruppert et al., Dumont (US 5,457,307), and Walter et al. are silent

to a self-checkout station with controllers.

Dumont (US 5,540,301) teaches a self checkout station what a data input port that inputs data from a storage unit, determining a price for the data input into the port, a customer automated payment acceptor that generates a signal based on the payment, and that a signal is generated when the payment is sufficient through “An automatic bulk self-checkout apparatus includes several purchase items, each item being marked with a bar code containing item price information, a purchase item holder for retaining purchase items as they are gathered and transported to a checkout area of a store, a bar code scanner assembly for reading the bar codes while the items are inside the item holder and for sending information contained in the bar codes as signals, a bar code processing assembly for receiving and converting the signals into numerical price data and for totaling prices of the items within the item holder” (abstract) and through “These doors remain closed until money, a credit card, coupons, or other payment means are inserted into a payment receiving assembly attached adjacent the entry port, and the totaled price is thereby paid. The payment receiving assembly sends a signal to the computer which in turn causes the entry and exit doors to open” (col 1, lines 37-43)

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al., Dumont (US 5,457,307), and Walter et al. with those of Dumont (US 5,540,301) in order to have a reliable self checkout system that has a portable data storage unit for receiving data, and a non-portable customer operated automated payment acceptor to generate a signal based on the payment, thereby providing an accurate and convenient way to purchase goods in a store.

Though Dumont fails to teach the use of controllers in the checkout station, at the time

the invention was made, it would have been obvious to an artisan of ordinary skill in the art to use controllers.

One would have been motivated to use controllers to accurately and efficiently control the payment and determining means, especially since the use of controllers has been discussed above. Further, it would have been obvious to use two controllers to control the two distinct electronic processes specified for controller one and controller two.

Re claim 17, though Dumont fails to specifically teach a portable data reading unit, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention to modify the checkout station of Dumont to include a portable scanner in order to make the checkout process more secure, reliable, and efficient by having the individual scan the items.

Re claim 18, the limitations have been taught above, by Ruppert et al. who teaches the use of various types of scanning devices in his portable unit. At the time the invention was made, it would have been obvious to use such reading units in self-checkout stations as opposed to only in the portable scanning units taught by Ruppert et al. One would have been motivated to do this in order to have a more versatile system with the ability to handle various forms of indicia/encoded data.

Re claims 19-20, Ruppert et al. teaches the above limitations introduced in these claims in his portable unit. At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to incorporate a RF tag reader that communicates with the register (base station) into the self-checkout station. One would have been motivated to do this to create a more secure system as that taught by Ruppert et al., since the items to be purchased would be scanned at a central station.

.....

Re claim 22, Dumont teaches that indication is generated upon payment through “Doors 54 and 56 remain closed until cash, a credit card, coupons or other payment means are inserted into a payment receiving assembly 60, which is mounted above entry port 14 and electrically connected to computer 28, and the totaled price is thereby paid” (col 5, lines 32-37).

Re claim 23, the limitations have been taught above, with respect to claim 13. Here it is understood that data is communicated through an input port with a storage unit.

Re claim 24, Dumont teaches the payment acceptor means through payment acceptor assembly 60 (FIG. 2).

Re claim 25, the teachings of Ruppert et al. and Dumont have been discussed above.

Ruppert et al. and Dumont fail to specifically teach that there is a memory device.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to include memory to hold the stored information about the products, since it is understood that without a memory device the apparatus of Dumont would not function.

One would have been motivated to add memory in order to be able to process and handle data and to convert signals into price data, etc.

Re claim 26, the limitations have been taught above, via the teachings of Dumont.

Re claims 27-28, the teachings of Ruppert et al. as modified by Dumont have been discussed above.

Ruppert et al. as modified by Dumont fails to specifically teach or fairly suggest that the identifiers are optical characters.

Ruppert et al. teaches optical characters above, with respect to claim 5.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Dumont with those of Ruppert et al.

One would have been motivated to do this in order to have an apparatus that can read optical characters as well as RF tags, and is therefore more versatile.

Re claim 29 Ruppert et al. teaches first and second RF interfaces to communicate with each other through “Antenna 304 is coupled to an RF module (not shown) which is used to download data to a host computer coupled to a local area network with an RF link or RF receiver with a digital interface to the host computer. The downloaded data can be scanned data from barcodes or data read from magnetic stripe cards, PC Cards or smart cards inserted into the PCMCIA slot. The antenna 304 can also be used to upload data from a local area network or RF transmitter coupled to a host computer” (col 17, lines 20-29). Here, the host computer is interpreted to include the base station.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont.

One would have been motivated to do this in order to have an alternative way to transmit data.

Re claim 30, Ruppert et al. teaches a price list where prices are determined, through “Other routines retrieve the current price list of the store to be shopped. This may be done by modem in some embodiments, or by physical connection to the store computer in other embodiments through the communication port (col 2, lines 11-16).

Though Ruppert teaches that the store computer holds the price list and therefore fails to specifically teach or fairly suggest that the checkout system holds the price list, it would have

been obvious to an artisan of ordinary skill in the art at the time of the invention to put the price list on the checkout system as a matter of design choice, since it appears that the system would function equally well with a price list on the computer or the checkout system, just as long as the price information is communicated. Further, the applicant has not disclosed that the price list on the checkout system solves any stated problem or is for any particular, functionally novel purpose, it is seen as a matter of design choice.

Re claim 31-32, an interface to a POS system and the payment accepting subsystem has been taught above.

Re claims 33-39, the teachings of Ruppert et al. as modified by Dumont have been discussed above. Further, Ruppert et al. teaches first and second RF interfaces to communicate with each other through “Antenna 304 is coupled to an RF module (not shown) which is used to download data to a host computer coupled to a local area network with an RF link or RF receiver with a digital interface to the host computer. The downloaded data can be scanned data from barcodes or data read from magnetic stripe cards, PC Cards or smart cards inserted into the PCMCIA slot. The antenna 304 can also be used to upload data from a local area network or RF transmitter coupled to a host computer” (col 17, lines 20-29). Here, the host computer is interpreted to include the base station.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont.

One would have been motivated to do this in order to have an alternative way to transmit data.

Re claims 34-39, the limitations have been taught above.

Response to Arguments

5. The examiner acknowledges the applicants amendment that the prior art of Ruppert et al. does not teach a separate portable device and payment acceptor, since it is integral. The examiner has cited additional prior art to meet the limitations of claims 1-39.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel Walsh** whose telephone number is **(703) 305-1001**. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[daniel.walsh@uspto.gov]**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Application/Control Number: 09/492,668
Art Unit: 2876

Page 16
D. Walsh

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


DW
1/26/02


KARL D. FRECH
PRIMARY EXAMINER